AMENDMENTS

In The Specification:

Please amend paragraphs as follows:

[0004] To prevent a creep, the inner ring 9 is press-fitted with an adequate amount of interference. The outboard side inner race 4 formed on the outer peripheral surface of the wheel hub 1 and the inboard side inner race 5 formed on the outer peripheral surface of the inner ring 9 are used as double-row inner races. The inner ring 9 is press-fitted onto the smaller diameter stepped portion 8 of the wheel hub 1, and an outer joint member 12 of the constant velocity universal joint 3, inserted from the inboard side of the wheel hub 1 in the axial direction, is then fastened onto the wheel hub 1 to mate the end portion of the inner ring 9 with the shoulder portion [[~~13~~]]13a of the outer joint member 12 so as to prevent the inner ring 9 from coming off and to perform a pre-load control.

[0008] The outer joint member 12 includes a bowl-shaped mouth portion [[~~26~~]]26a accommodating the inner joint member 23, the balls 24 and the cage 25, and a stem portion 27 integrally formed with and extending from the mouth portion [[~~26~~]]26a in an axial direction with a serration 11 formed on its outer peripheral surface. To fix the constant velocity universal joint 3 to the wheel hub 1, the stem portion 27 is inserted into the through hole of the wheel hub 1, so that the outer peripheral surface of the stem portion 27 and the inner peripheral surface of the through hole are mated with the serrations 11 and 10 which are formed thereon, respectively, and a nut 29 is set to the thread portion 28 formed in the shaft end portion and tightened. A pre-load

is controlled by applying an axial force produced by tightening the nut 29.

[0009] As shown in FIG. 5, the outer joint member 12, which is a part of the above-mentioned constant velocity universal joint 3, includes the mouth portion [[~~26~~]]26a and the stem portion 27. The mouth portion [[~~26~~]]26a has the plurality of track grooves 21 formed on its inner peripheral surface, and a shoulder portion [[~~13~~]]13a formed on the outer peripheral surface corresponding to its bottom portion. The stem portion 27 has a back face 30, which is an end face of the shoulder portion of the mouth portion [[~~26~~]]26a, to be abutted to an end portion of the inner ring 9, a thread portion 28 and the serration 11 that enables torque transmission between the wheel hub 1 and the stem portion 27. The stem portion 27 is fixed to the wheel hub 1 by tightening the nut 29 on the thread portion 28, thereby mating the serration 11 with the wheel hub 1 to transmit the torque.

[0012] In general, a region ranging from the serration 11 of the stem portion 27 to the shoulder portion [[~~13~~]]13a of the mouth portion [[~~26~~]]26a through the back face 30 of the base portion 31 (induction hardened area A) and a track region which is an inner peripheral surface where the track groove 21 of the mouth portion [[~~26~~]]26a is formed (induction hardened area B) are subjected to surface hardening treatment by induction hardening. The wall of the back face 30 is designed to be thinner because the base portion 31 of the stem portion 27 is subjected to induction hardening. However, since the base portion 31 is chamfered, the depth of the hardened portion becomes shallow in the base portion 31. This depth becomes shallower more significantly when the outside diameter of the shoulder portion [[~~13~~]]13a is equal to or more than

twice of the outside diameter of the serration in the stem portion 27.

[0013] This is because the base portion 31 is difficult to be hardened for fear of a quench crack and a fusion at the corner portion 32. The quench crack and the fusion may occur when the serration 11 of the stem portion 27, the back face 30 of the base portion 31 and the shoulder portion [[~~13~~]]13a of the mouth portion [[~~26~~]]26a are subjected to induction hardening at the same time because it is difficult to concentrate the heat at the base portion 31 of the stem portion 27, while it is easy to concentrate the heat at the corner portion 32 between the back face 30 and the corner portion [[~~13~~]]13a. The quench crack is easier to occur in induction hardening than in other heat treatments, because heating up time to a high temperature (900 to 1000.degree. C.) is so short as a few seconds and so is a cooling time.

[0014] A possible countermeasure against this problem is to use a ferrite core and the like for the base portion 31 of the stem portion 27 to facilitate a heat concentration at the base portion 31 during induction hardening. However, in practice, it is difficult to attain a good heat concentration at the base portion 31. Another possible countermeasure is to chamfer the shoulder portion [[~~13~~]]13a of the mouth portion [[~~26~~]]26a to an obtuse angle. However, this may significantly deteriorate sealing performance.

[0015] Another possible countermeasure to improve the strength of the base portion 31 of the stem portion [[~~26~~]]26a is to change the material of the outer joint member 12 to alloy steel. However, this cannot be an effective countermeasure because it substantially deteriorates

forgeability. Another possible countermeasure is to improve fatigue strength by shot peening. However, this hardly improves a static strength and impact strength.

[0016] Prevention of quench crack at the corner portion 32 between the back face 30 and the shoulder portion [[~~13~~]]13a requires so many quality control items including check of clearance between an induction heating coil and the outer joint member 12, heat control during heating the coil, frequency optimization, coolant concentration control, cooling start time optimization, and Jominy value control for a material, that they actually cause a low yield rate and a high cost.